

AMENDMENTS TO THE DRAWINGS:

The attached drawing(s) include changes to FIGs. 1-6. The sheets containing FIGs. 1-6, respectively replace the original sheets including FIGs.1-6, respectively.

In the Office Action at item 3, the Examiner objected to the drawings in that FIGs. 1-6 should be designated by a legend as --Prior Art--. In order to overcome this objection, replacement figures are submitted herewith, and the legend --Prior Art-- added to FIGs 1-6. Approval of these changes to the Drawings is respectfully requested.

REMARKS

In accordance with the foregoing, the drawings are amended herein. No new matter is presented, and accordingly, approval and entry of the foregoing amended drawings are respectfully requested.

Claims 1-5 and 10-16 are pending and under consideration.

ITEM 3: OBJECTION TO DRAWINGS

In item 3, the Examiner objects to FIGs. 1-6 and contends that Figures 1-6 should be designated "by a legend such as --Prior Art-- because only that which is old is illustrated." (Action at page 2).

FIGs. 1-6 are amended herein to add the legend --Prior Art--, as the Examiner suggests. Withdrawal of the objection is requested.

ITEM 4: OBJECTION TO SPECIFICATION

In item 4, the Examiner objects to the specification because of informalities:

(w)hile the Specification states an inverted terminal is coupled to resistors 1671 and 1672 (Specification, page 16, lines 27-29), the Specification also states that the voltage V_{i1} (is) applied to the non-inverted inverted terminal of the first comparator 164 (Specification, page 16, lines 33-34).

(Action at pages 2-3). The paragraph beginning on page 16, lines 26 is amended herein to read:

When the resistance of the resister 1671 is R_1 , that of the resistor 1672 is R_2 , and the voltage at the PSW terminal or the +5V terminal of PC1 is V_1 , the voltage V_{i1} applied to the ~~non-inverted~~ inverted terminal of the first comparator 164 can be calculated by the following equation.

$$V_{i1} = [R_2 / (R_1 + R_2)] \times V_1$$

When the resistance of the resister 1673 is R_3 , that of the resistor 1674 is R_4 , and the voltage applied to main CPU 710 and keyboard 74 is V , the voltage V_{n1} applied to the ~~inverted~~ non-inverted terminal of the first comparator 164 can be calculated by the following equation.

$$V_{n1} = [R_4 / (R_3 + R_4)] \times V$$

(Annotations included).

Withdrawal of the objection to the specification is requested.

ITEM 7: REJECTION OF CLAIM 1 UNDER 35 U.S.C. §103(a) OVER KEEMUX KVM SWITCH BY NETWORK TECHNOLOGY (KEEMUX) IN VIEW OF LEE (U.S.P. 5,935,254) AND WILDER ET AL. (U.S. P. 6,557,170).

Claim 1 recites a PC switching device installed between a keyboard without a power control key and a plurality of personal computers "powering off the same when the certain ones of the personal computers in the power-on state are selected by the selective inputting means

and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again."

The Action concedes that KEEMUX does not teach an attached keyboard without a power control key, and does not teach a plurality of power control switches. (Action at page 4). Nevertheless, the Examiner rejects claim 1 under 35 U.S.C. 103(a) as being unpatentable over the combination of the KEEMUX, Lee, and Wilder.

Applicant submits that *prima facie* obviousness is not established since there is no reasonable chance of success, or motivation, to combine the art in the manner as the Examiner contends.

In contrast to recited features of claim 1, KEEMUX teaches a Power-Up Sequence in which a switch device is powered by either or both computers and is powered down by the computers being powered down.

The Examiner mistakenly contends there is motivation to combine KEEMUX with Lee "to use the soft switch to avoid the circuit damage (column 1, lines 53-54)." (Action at page 5). However, Lee teaches (see, for example, col. 1, lines 45-50) that such a soft switch operates with a DC voltage supplied from a power supply contained within the computer system.

Thus, with such a soft switch one cannot selectively power down a plurality of computers. That is, the KEEMUX reference, alone or in combination, cannot selectively power down one of the plurality of computers since the KEEMUX reference itself is powered by the computers.

Further, the Examiner contends that KEEMUX Normal Mode "transmits the control code including the power control code."

Applicants respectfully submit that the Examiner's contention is without support, and request a citation in KEEMUX for such a teaching or that the rejection be withdrawn.

Conclusion

Since features recited by claim 1 are not taught by the cited art, alone or in combination, and there is no motivation to combine the references in a manner as the Examiner contends, the rejection should be withdrawn and claim 1 allowed.

ITEM 8: REJECTION OF CLAIMS 2-3 UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER THE COMBINATION OF KEEMUX AND LEE

In item 8, the Examiner rejects claims 2-3 under 35 U.S.C. 103(a) as being unpatentable over the combination of the KEEMUX and Lee.

Applicants submit that the cited art, alone or in combination, does not teach features

recited by claims 2 and 3, using claim 2 as an example, of a PC switching device including "powering means for powering all of the plurality of personal computers simultaneously by pressing the power control key on the keyboard when the plurality of personal computers are in a power-off state." (Emphasis added).

Applicants submit that the Examiner's contention that KEEMUX has a function "to simultaneously start-up and shut-down all computers" (Action at page 5) is not correct.

Rather, KEEMUX merely teaches a system that is powered up by the computers and therefore can not power the computers that power itself.

Conclusion

Since features recited by claims 2-3 are not taught by the cited art, alone or in combination, the rejection should be withdrawn and claims 2-3 allowed.

ITEM 9: REJECTION OF CLAIMS 4, 11, AND 16 UNDER 35 U.S.C. §103(A) OVER KEEMUX LEE, WILDER AND KWOK (U.S.P. 4,412,245)

ITEM 10: REJECTION OF CLAIMS 5, 13-14, AND 16 UNDER 35 U.S.C. §103(A) OVER KEEMUX, LEE, AND KWOK (U.S.P. 4,412,245)

Dependent claims 4 and 14, recite, using claim 4 as an example, a switch including a comparator "comparing a first voltage at each of the power supply terminals with a second voltage of the power receiving terminal, and turning on some of the transistors when the former is higher than the latter, but turning off other transistors when the former is lower than the latter." Claims 11 and 16 are dependent on claim 4.

Dependent claim 5 recites a PC switching comprising "transistors controlling connecting states between power supply terminals of the plurality of personal computers for powering the keyboard and a power receiving terminal of the keyboard; and comparators comparing a first voltage at each of the power supply terminals with a second voltage of the power receiving terminal, and turning on some of the transistors when the former is higher than the latter, but turning off other transistors when the former is lower than the latter." Claim 13 is dependent on claim 5.

The Action concedes that "neither prior art explicitly discloses the comparator . . . KEEMUX does not (teach) operation of powering its LED (that indicates a power on status)," however, the Examiner rejects claims 4, 11, and 16 under 35 U.S.C. 103(a) as being unpatentable over the combination of the KEEMUX, Lee, Wilder, and Kwok and rejects claims 5, 13-14, and 16 over the combination of the KEEMUX, Lee, and Kwok.

Applicants submit there is no there is no reasonable chance or success, or motivation, to

combine the art in a manner as the Examiner suggests.

The Examiner mistakenly contends that "KEEMUX can compare the voltage of the power-on host computer and power the associated LED."

However, KEEMUX merely teaches (page 2) that "LEDs indicate currently selected port and mode of operation," and not a voltage comparison as the Examiner suggests.

Conclusion

Since there is no reasonable chance of success to combine the cited art in a manner as suggested by the Examiner and *prima facie* obviousness is not established, the rejection should be withdrawn and claims 4, 5, 11, 13-14, and 16 allowed.

ITEM 11: REJECTION OF CLAIMS 10, 12, AND 15 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER COMBINATIONS OF KEEMUX, LEE, WILDER, KWOK, AND "DIFFERENTIAL AMPLIFIERS" BY DOUG GINGRICH

Claims 10, 12, and 15, using claim 10 as an example, recite "first voltage dividers dividing a voltage at each of the power supply terminals; and second voltage dividers dividing a voltage at the power receiving terminal by a ratio equal to that of a corresponding one of the first voltage dividers, wherein the first voltage is a voltage divided by each of the first voltage dividers, and the second voltage is a voltage divided by each of the second voltage dividers."

The Action concedes that KEEMUX, Lee, Wilder, and Kwok do not teach a "first voltage and the second voltage divided by the first voltage divider and the second voltage divider." However, the Examiner rejects claim 10 under 35 U.S.C. 103(a) as being unpatentable over the combination of the KEEMUX, Lee, Wilder, Kwok, and "Differential Amplifiers" by Doug Gingrich, and rejects claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over KEEMUX, Lee, Kwok, and Gingrich.

Applicants submit there is no reasonable chance or success, or motivation, to combine the art in a manner as the Examiner suggests. Further, the Examiner has not supported his contention that "Gingrich teaches that it is known to employ voltage dividers to reduce noise."

Applicants submit that the Examiner's contention is incorrect that since "Gingrich's differential amplifier amplie(r)s the difference between the inputs as a precision voltage difference, Gingrich's amplifier is a comparator" (Action at page 11), is also not supported.

As understood in the art, a comparator "compares , e.g., a component which satisfies, for input V_{in} and reference voltage V_r the equations: if $V_{in} > V_r$ then $V_{out} = V_{cc}$. if $V_{in} < V_r$ then $V_{out} = -V_{cc}$." (See, for example, Glossary of Electrical Engineering Terms at <http://ece.wpi.edu/~frontier>

/glossary. html.)

Conclusion

Since there is no reasonable chance of success to combine the cited art in a manner as suggested by the Examiner and *prima facie* obviousness is not established, the rejection should be withdrawn and claims 10, 12, and 15 allowed.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: April 5, 2005

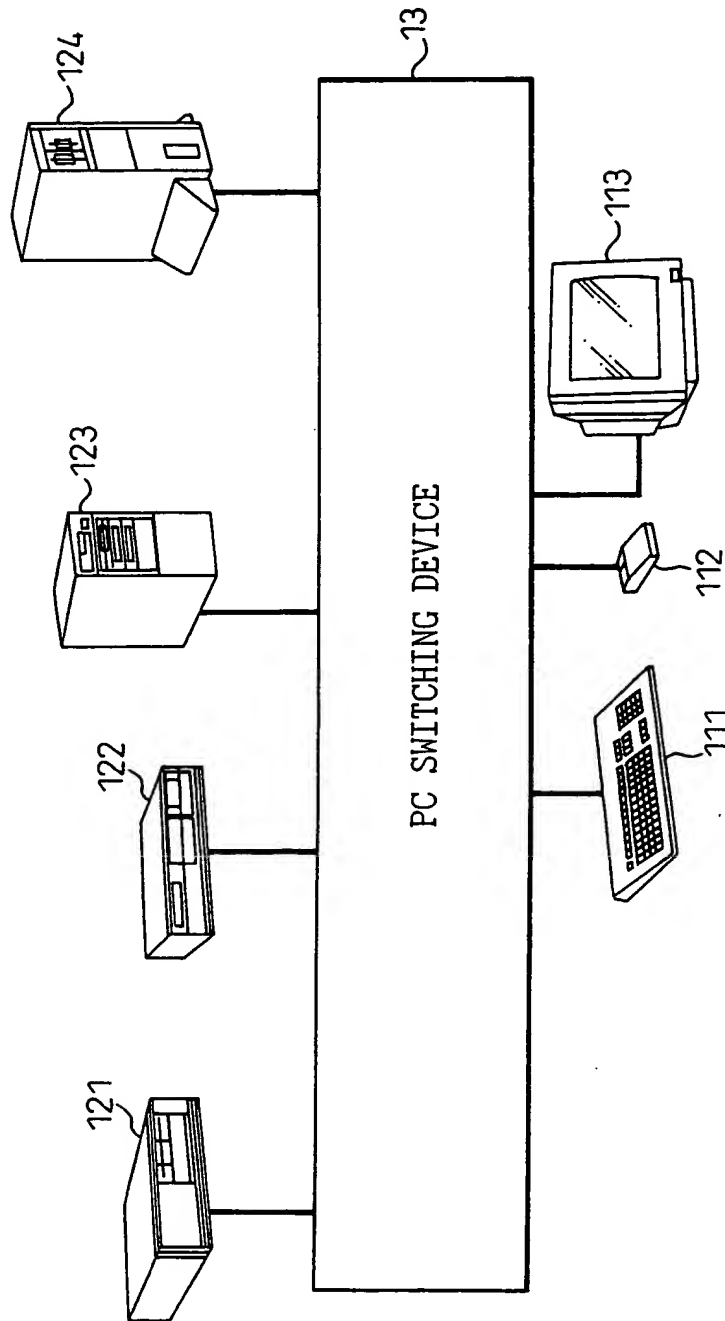
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Prior Art

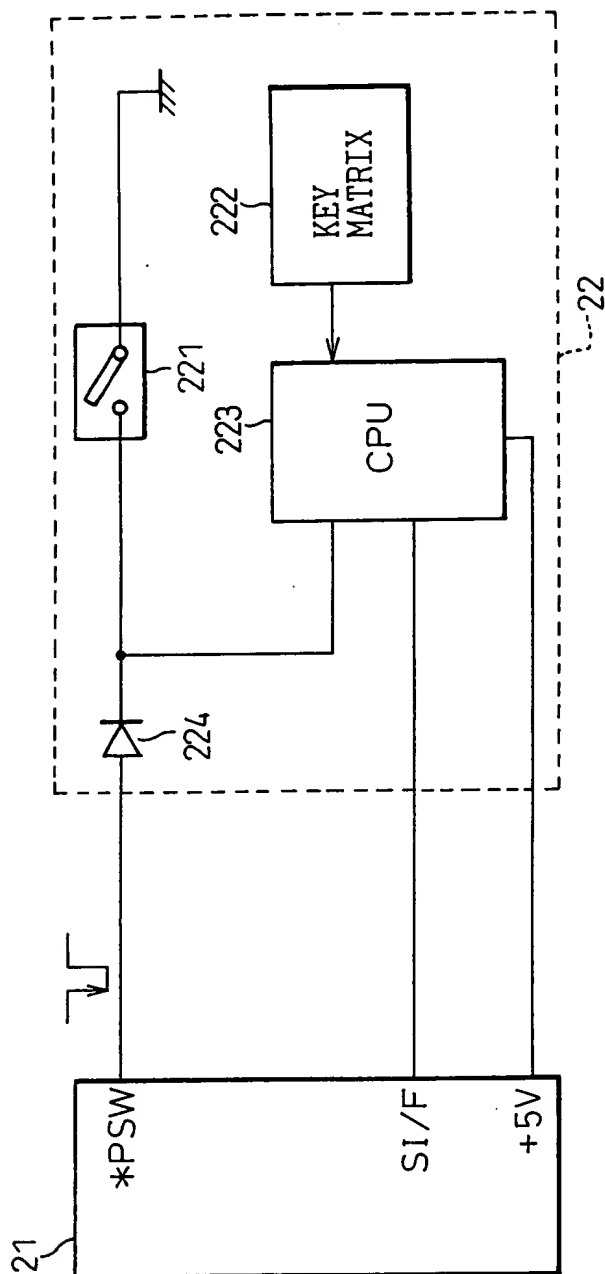
Fig.1



ANNOTATED SHEET

Prior Art

Fig.2



ANNOTATED SHEET

Prior Art

Fig.3A

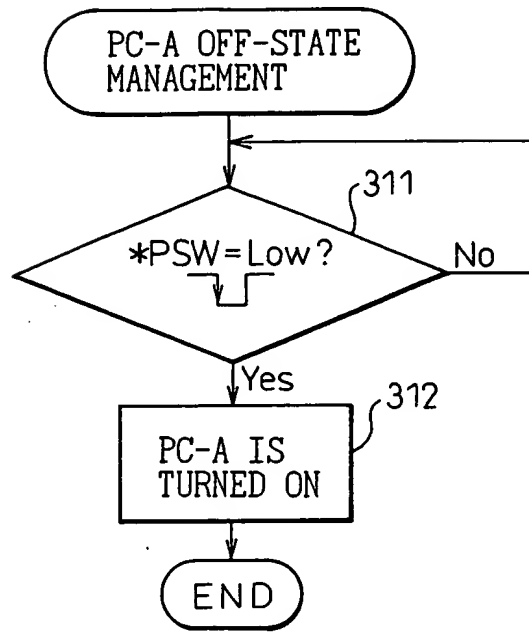
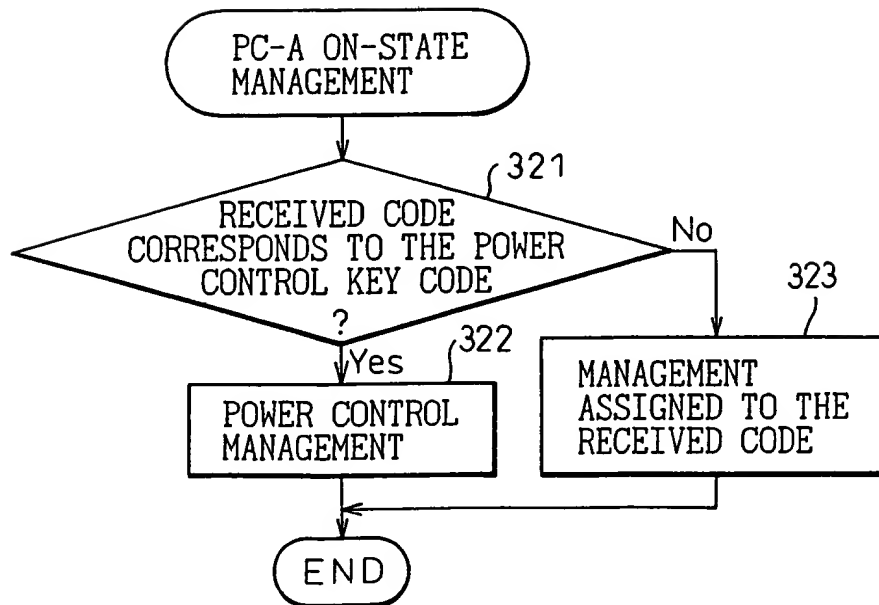
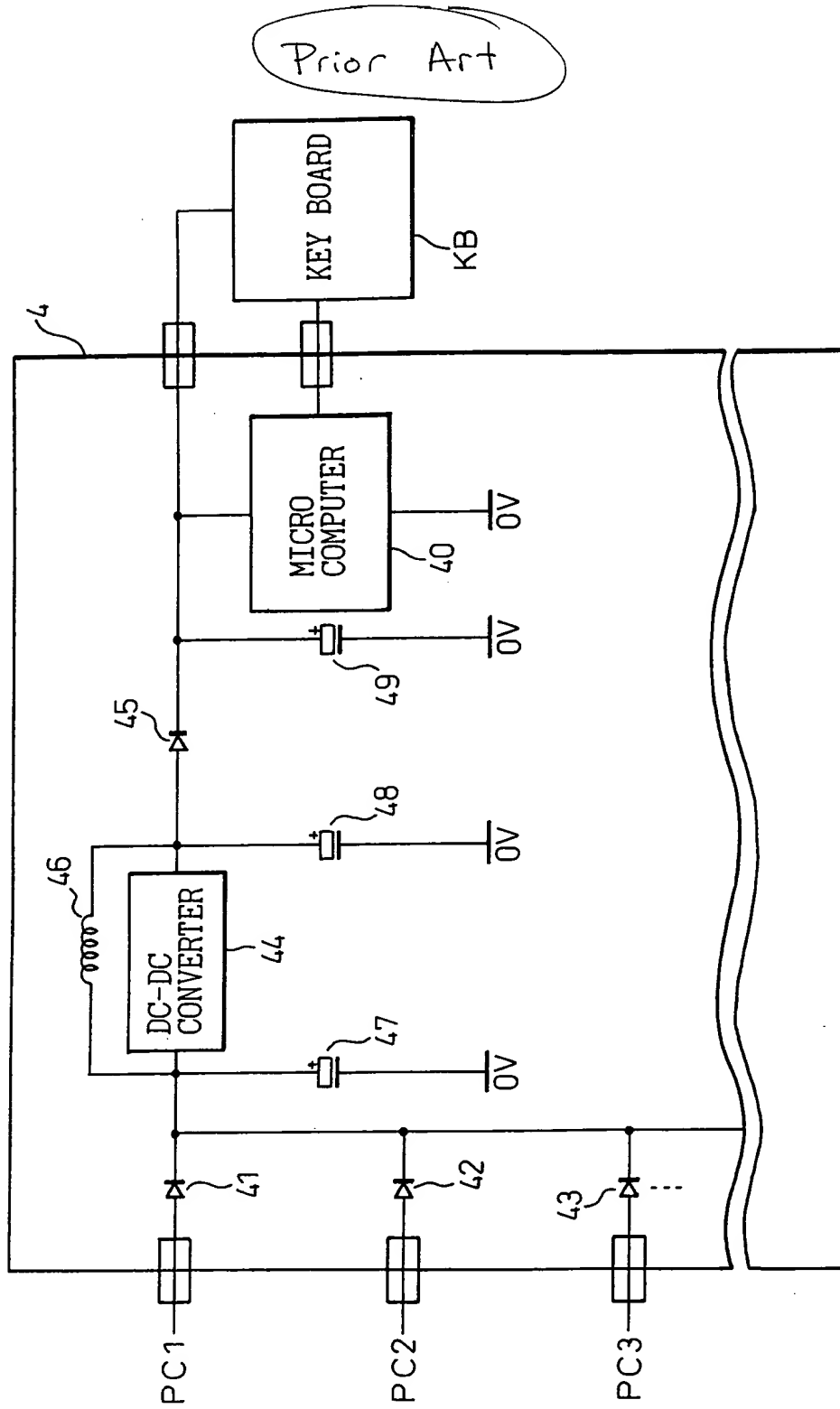


Fig.3B



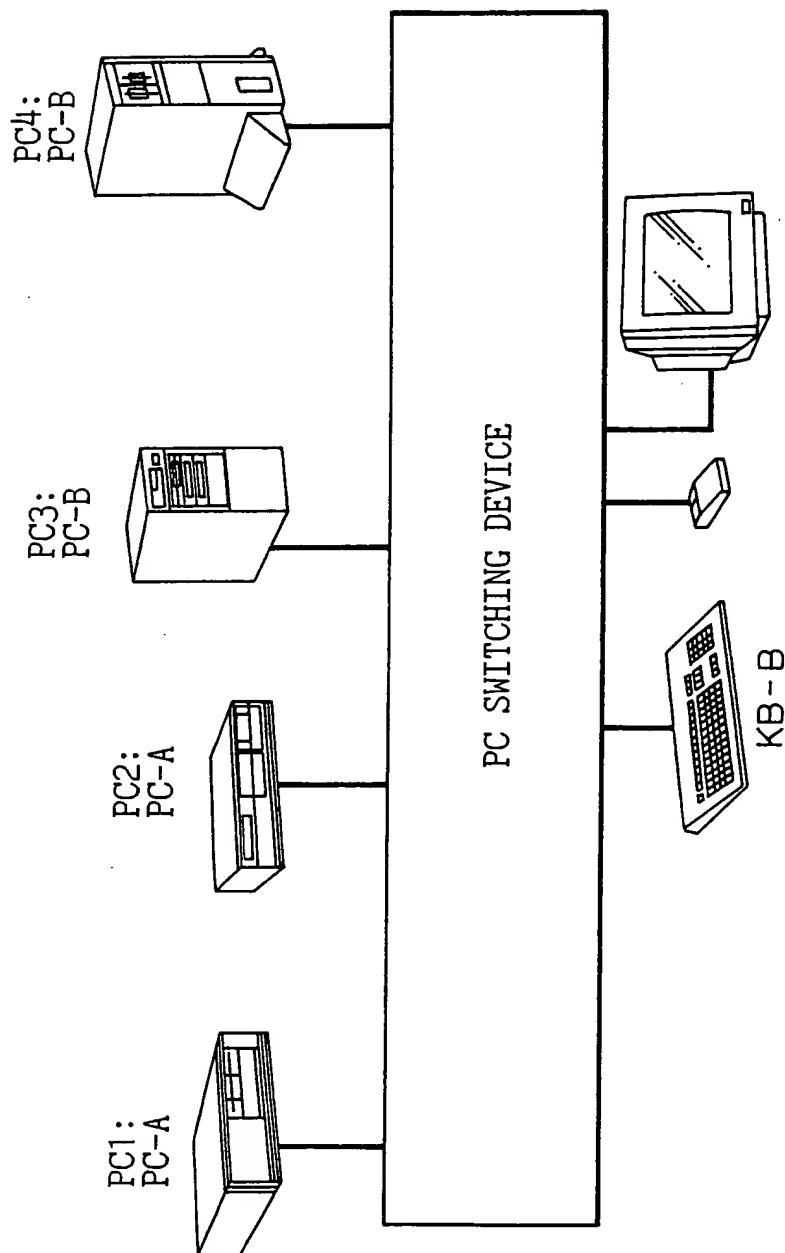
ANNOTATED SHEET

Fig. 4



Prior Art

Fig.5



Prior Art

Fig.6

